



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,012	03/10/2004	Keizo Michihata	250094US0DIV	4247
22850	7590	07/17/2006		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.				EXAMINER
1940 DUKE STREET				MIGGINS, MICHAEL C
ALEXANDRIA, VA 22314				ART UNIT
				PAPER NUMBER
				1772

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/796,012	MICHIHATA ET AL.
	Examiner Michael C. Miggins	Art Unit 1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 10 March 2004.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 17-43 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 17-43 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 3/10/04, 6/8/04.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 17-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleyn (US 5547096) in view of Hata et al. (US 6033749).

Kleyn discloses a fuel container made of a layered structure (column 2, lines 43-56), the layered structure at least comprising an outer layer made of a thermoplastic material (14 from Fig. 2 and column 2, lines 43-56, column 3, lines 22-30) wherein the fuel container is provided with an opening through its body (30 and 32 from Fig. 2, column 3, lines 1-12), wherein a cutting face of a layer at the opening is covered by a barrier member made of a barrier material (34, 36 or 18 from Fig. 2 and column 3, lines 1-12, column 3, lines 31-42) and wherein the layer covered by the barrier member is located on the outside with respect to the barrier layer (since both 34, 36 and 18 from Fig. 2 are on the exterior) (applies to instant claims 17, 26-28 and 40).

Kleyn does not disclose an interior barrier layer.

Hata discloses an interior barrier layer made of a barrier resin (column 5, lines 50-60) for fuel tanks for the purpose of providing improved barrier properties and light weight (column 1, lines 60-65) (applies to instant claims 17 and 28).

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided an interior barrier layer made of a barrier resin in the fuel tank of Kleyn in order to provide improved improved barrier properties and light weight as taught or suggested by Hata.

Kleyn discloses that the barrier material of the barrier member is a metal foil (column 3, lines 22-30).

Hata discloses inner and outer thermoplastic layers surrounding an intermediate gas barrier layer (column 5, lines 50-65), wherein the barrier layer is EVOH (column 5, lines 50-65), wherein adhesive layers are used to bond the barrier layers (column 5, lines 50-65), wherein the thermoplastic layers are HDPE (column 2, lines 1-7).

With regard to claims 20, 23, 31, 34 and 41-43 applicant has recited values and ranges for gas permeability of the tank and thickness. However, finding the workable or optimum range for a result effective variable is obvious and within the level of one of ordinary skill in the art absent an unexpected result (MPEP 2144). Furthermore it would have been obvious to have provided the recited values and ranges for gas permeability of the tank and thickness in the fuel tank of Kleyn in order to provide improved gas barrier properties and/or lower costs.

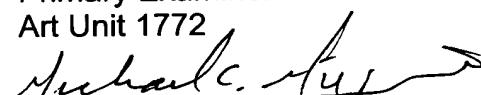
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is 571-272-1494. The examiner can normally be reached on 1:00-10:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael C. Miggins  
Primary Examiner  
Art Unit 1772



MCM  
June 12, 2006